

Orchid Research Newsletter No. 62

The sixth and final volume of *Genera Orchidacearum* was submitted to Oxford University Press last April for publication in spring of 2014, concluding a series that began in 1999 but was in preparation two years before that. It is the first robust and natural classification of the orchid family that incorporates a wealth of new DNA data into a truly phylogenetic framework and identifies the areas and taxa that merit additional work. Over the course of the 15-year publication run there have been 98 contributors from around the world, but many of them worked on two or more volumes.

What has changed in the 20 years since Robert L. Dressler's *Phylogeny and Classification of the Orchid Family* (1993)? Dressler recognized 5 subfamilies (including Spiranthoideae), 21 tribes, 66 subtribes, and 804 genera, with some "misfits and leftovers" – Arundinae, Collabiinae, Pogoniinae, *Claderia*, *Eriopsis*, *Thaia*, and *Xerorchis*. *Genera Orchidacearum* recognizes 5 subfamilies also: Apostasioideae, Cyprripedioideae, Vanilloideae, Orchidoideae (including Spiranthoideae), and Epidendroideae. There are now 24 tribes, 51 subtribes, and 765 genera. As for Dressler's misfits, Arundinae are now part of Arethusinae, Collabiinae and several other genera have been elevated to tribal status, Pogoniinae are now included in Vanilloideae, *Claderia* has been placed in Cymbidiinae, *Eriopsis* into its own subtribe, *Thaia* in Neottieae, and *Xerorchis* into its own tribe. Dressler estimated 19,500 species in Orchidaceae, and as of 1 January 2011 there were 26,567 species recognized in the World Checklist of Selected Plant Families -- many more if you think that there are as many species of *Ophrys* as there are beetles, or less if you argue from published DNA sequencing data (Devey *et al.*, 2008) the number is closer to that of the Beatles plus George Martin and Billy Preston.

Volume 6 of *Genera Orchidacearum* covers Dendrobieae (*Bulbophyllum*, *Dendrobium*) and Vandeae (Adrorhizinae, Aeridinae, Agrostophyllinae, Angraecinae, Polystachyinae) with an addendum of additional and revised genera in groups treated in prior volumes. The volume concludes with a cumulative glossary, corrigenda, effective dates of publication, series contributors, and cumulative generic synonyms.

The series has been a labour of love for the editors, contributors, artists, photographers, and staff members of the Royal Botanic Gardens, Kew, and Oxford University Press over the years. Although *Genera Orchidacearum* is now ending, we hope it will serve as a benchmark for future work in orchid systematics toward a final classification, if indeed there are still orchids on the planet by that time. If not, that classification will be merely a wistful catalogue of extinctions.

Alec Pridgeon

References

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News from Correspondents

Please submit any news about newly completed research, future research plans and needs, change of address, upcoming or recent fieldwork, etc. to Alec Pridgeon (a.pridgeon@kew.org). Graduate students are especially encouraged to share the subjects of their thesis or dissertation with the international community. We will print submissions in the format below. Many thanks to those who have contributed.

Antonio Toscano de Brito has been named Curator of the Orchid Research Center at Marie Selby Botanical Gardens. His duties will include researching selected orchid species, publishing scientific and popular articles, identifying plants, building Selby's living and preserved collections and giving lectures on plant research. Toscano began work at Selby Gardens on the Global Plants Initiative project, funded by the Mellon Foundation in April 2011. He is currently working under two grants studying orchids of Brazil. His research involves molecular work which is funded by the Institute for Museum and Library Services, and fieldwork partially supported by an individual grant from the National Geographic Society.

Upcoming Conferences

We welcome any news about future orchid conferences for promotion here. Please send details to Alec Pridgeon (a.pridgeon@kew.org) as far in advance of the event as possible, remembering that the *Orchid Research Newsletter* is published only in January and July of each year.

9th International Symposium on Diversity and Conservation of Asian Orchids

The 9th International Symposium on Diversity and Conservation of Asian Orchids will be held 15-17 November 2013 at Fujian Agriculture and Forestry University in Fuzhou, Fujian Province, China. Themes will be taxonomy and phylogeny of Asian orchids, linking conservation and industry development of orchids, and orchid biogeography and floristics. The deadline for registration is 15 November 2013. The language of the symposium will be English. More information on accommodations, transportation, registration, etc. is available at www.osgasia.org or from Meina Wang at osgasiaoffice@163.com.

21st World Orchid Conference

The 21st World Orchid Conference (WOC21) will take place from 10-14 September 2014 in Johannesburg, South Africa, at the Sandton Convention Centre. The lecture programme is still being firming up, but preliminary information hints at world-class plenary speakers. The official accommodation provider for WOC21 is Southern Sun Hotels and the official tour operator is Grosvenor Tours, which will be conducting a variety of excursions to Cape Town, Botswana (Victoria Falls, Chobe National Park, Okavango Delta), Zambia (Victoria Falls, South Luangwa National Park, Lower Zambezi National Park), Quirimbas Archipelago, Namibia, Zambezi River, Mozambique (Niassa National Park), and other once-in-a-lifetime adventures. Closer to Johannesburg, the world-famous Kruger National Park beckons. For further information, visit www.woc21.org.

The Fifth Scientific Conference on Andean Orchids will be held in Cali, Colombia, in 2015. Information will be posted here as soon as it is posted.

Recent Orchid Nomenclature

New orchid names may now be accessed on the IPNI website:

(www.ipni.org/ipni/plantsearch?request_type=search&output_format=query&ret_defaults=on)

Click on "Show additional search terms" on the right-hand side of the screen. After the search page appears, type in **Orchidaceae** under family name and (for example) **2010-11-30** under "Record date" and "Added since." This will pull up a list of all names added to the IPNI database since 30 November 2010.

Recent Literature

We consult a variety of other sources for recent literature, and you will find a more extensive range of journals from more disciplines than ever before. We sincerely thank Paolo Grünanger for supplying references from European orchid journals. If you are aware of any recent citations not listed here and henceforth, please send them – in the exact style below – to Alec Pridgeon (a.pridgeon@kew.org) for publication in the following issue (January or July). Write "ORN references" in the subject line of the e-mail. Book citations should include author(s), date of publication, title, publisher, and place of publication (in that order). Journal titles should be spelled out in full.

Anatomy and morphology

Buyun, L. I. 2013. Adaptative changes of leaf surface of tropical orchid *Cattleya gaskelliana* (N.E.Br.) B.S. Williams after transferring from *in vitro* to *ex vitro* conditions. *Modern Phytomorphology* 3: 293-296.

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Rudall, P. J., Perl, C. D., and Bateman, R. M. 2013. Organ homologies in orchid flowers re-interpreted using the musk orchid as a model. *PeerJ* 1: e26.

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Micropropagation/seed germination

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